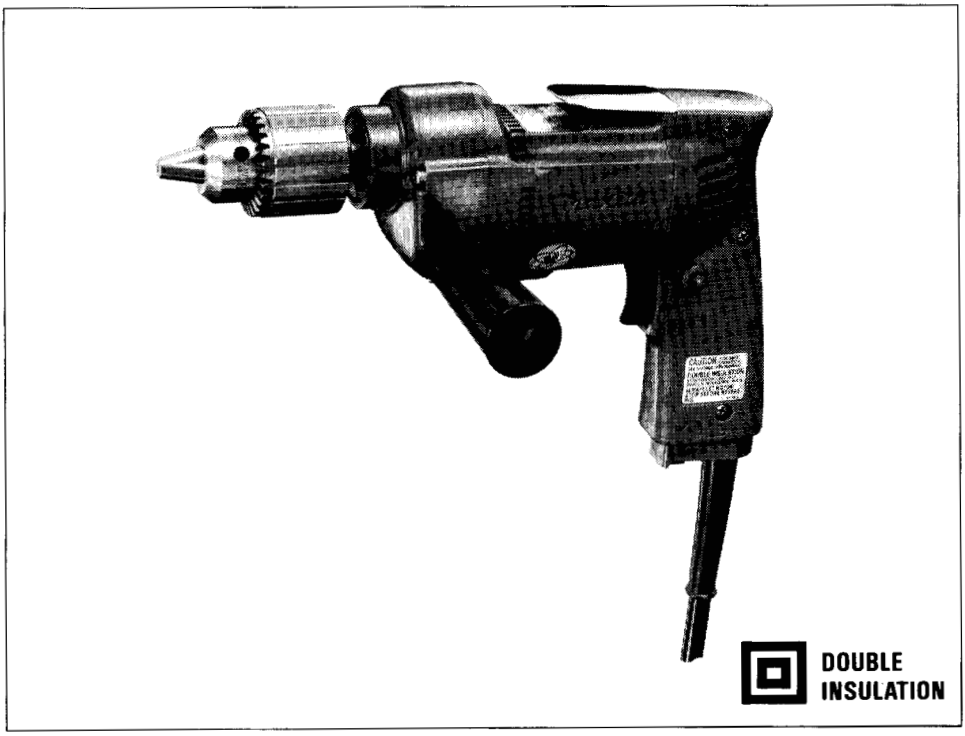
makita

Drill

13 mm (1/2") MODEL 6302
Variable speed/Reversing

13 mm (1/2") MODEL 6303
Variable speed/Reversing

INSTRUCTION MANUAL



SPECIFICATIONS

Model	Drilling capacities		No load speed (RPM)	Overall length	Net weight
	Steel	Wood			
6302	13 mm (1/2")	36 mm (1-3/8")	0 — 550	285 mm (11-1/4")	2.0 kg (4.4 lbs)
6303	13 mm (1/2")	36 mm (1-3/8")	0 — 850	285 mm (11-1/4")	2.0 kg (4.4 lbs)

* Manufacturer reserves the right to change specifications without notice.
* Note: Specifications may differ from country to country.

IMPORTANT SAFETY INSTRUCTIONS

(For All Tools)

WARNING: WHEN USING ELECTRIC TOOLS, BASIC SAFETY PRECAUTIONS SHOULD ALWAYS BE FOLLOWED TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, AND PERSONAL INJURY, INCLUDING THE FOLLOWING:

READ ALL INSTRUCTIONS.

1. KEEP WORK AREA CLEAN. Cluttered areas and benches invite injuries.
2. CONSIDER WORK AREA ENVIRONMENT. Don't use power tools in damp or wet locations. Keep work area well lit. Don't expose power tools to rain. Don't use tool in presence of flammable liquids or gases.
3. KEEP CHILDREN AWAY. All visitors should be kept away from work area. Don't let visitors contact tool or extension cord.
4. STORE IDLE TOOLS. When not in use, tools should be stored in dry, and high or locked-up place — out of reach of children.
5. DON'T FORCE TOOL. It will do the job better and safer at the rate for which it was intended.
6. USE RIGHT TOOL. Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended.
7. DRESS PROPERLY. Don't wear loose clothing or jewelry. They can be caught in moving parts. Rubber gloves and non-skid footwear are recommended when working outdoors. Wear protective hair covering to contain long hair.
8. USE SAFETY GLASSES. Also use face or dust mask if cutting operation is dusty.
9. DON'T ABUSE CORD. Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
10. SECURE WORK. Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
11. DON'T OVERREACH. Keep proper footing and balance at all times.
12. MAINTAIN TOOLS WITH CARE. Keep tools sharp and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and if damaged, have repaired by authorized service facility. Inspect extension cords periodically and replace if damaged. Keep handles dry, clean, and free from oil and grease.
13. DISCONNECT TOOLS. When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.

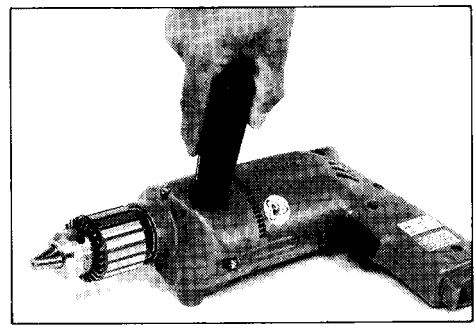
14. REMOVE ADJUSTING KEYS AND WRENCHES. Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
15. AVOID UNINTENTIONAL STARTING. Don't carry plugged-in tool with finger on switch. Be sure switch is OFF when plugging in.
16. OUTDOOR USE EXTENSION CORDS. When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
17. STAY ALERT. Watch what you are doing, use common sense. Don't operate tool when you are tired.
18. CHECK DAMAGED PARTS. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Don't use tool if switch does not turn it on and off.
19. GUARD AGAINST ELECTRIC SHOCK. Prevent body contact with grounded surfaces. For example; pipes, radiators, ranges, refrigerator enclosures.
20. REPLACEMENT PARTS. When servicing, use only identical replacement parts.
21. POLARIZED PLUGS: To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

VOLTAGE WARNING: Before connecting the tool to a power source (receptacle, outlet, etc.) be sure the voltage supplied is the same as that specified on the nameplate of the tool. A power source with voltage greater than that specified for the tool can result in SERIOUS INJURY to the user — as well as damage to the tool. If in doubt, DO NOT PLUG IN THE TOOL. Using a power source with voltage less than the nameplate rating is harmful to the motor.

ADDITIONAL SAFETY RULES

1. **Always be sure you have a firm footing.**
   Be sure no one is below when using the tool in high locations.
2. **Hold the tool firmly.**
3. **Keep hands away from rotating parts.**
4. **When drilling into walls, floors or wherever "live" electrical wires may be encountered, DO NOT TOUCH ANY METAL PARTS OF THE TOOL!**
   Hold the tool by the insulated grasping surfaces to prevent electric shock if you drill into a "live" wire.
5. **Do not leave the tool running. Operate the tool only when hand-held.**
6. **Do not touch the drill bit or the workpiece immediately after operation; they may be extremely hot and could burn your skin.**

SAVE THESE INSTRUCTIONS.



Installing side grip (auxiliary handle)

Screw the side grip on the tool securely.

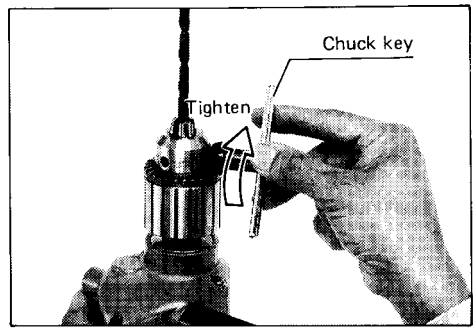
Installing or removing drill bit

CAUTION:

Always be sure that the tool is switched off and unplugged before installing or removing the bit.

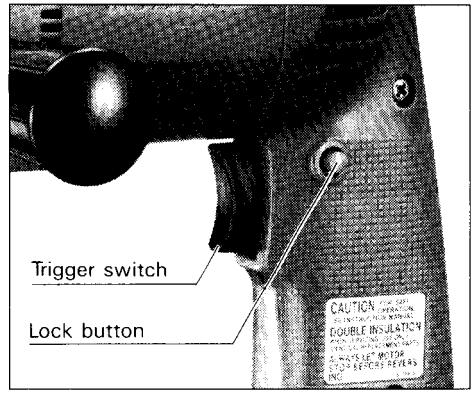
To install the bit, place it in the chuck as far as it will go. Tighten the chuck by hand. Place the chuck key in each of the three holes and tighten clockwise. Be sure to tighten all three chuck holes evenly.

To remove the bit turn the chuck key counterclockwise in just one hole, then loosen the chuck by hand.



Switch action

Tool speed is increased by increasing pressure on the trigger. To start the tool, simply pull the trigger. Release the trigger to stop. For continuous operation, pull the trigger and then push in the lock button. To stop the tool from the locked position, pull the trigger fully, then release it.

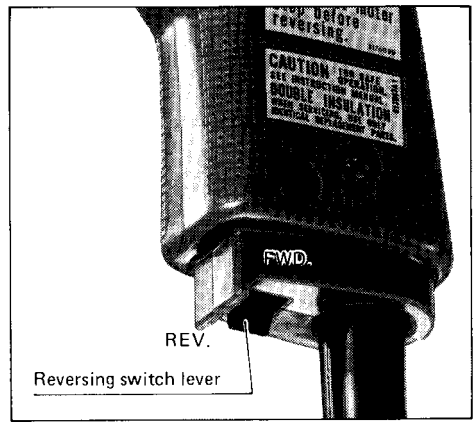


CAUTION:

Before plugging in the tool, always check to see that the trigger switch actuates porperly and returns to the "OFF" position when released.

Reversing switch action

This tool has a reversing switch to change the direction of rotation. Move the reversing switch lever to the "FWD" position for clockwise rotation or the "REV" position for counterclockwise.



CAUTION:

- Always check the direction of rotation before drilling.
- Use the reversing switch only when the tool comes to a complete stop. Changing the direction of rotation before the tool stop may ruin the tool.

Drilling operation

- Drilling in wood
  When drilling in wood, best results are obtained with wood drills equipped with a guide screw. The guide screw makes drilling easier by pulling the bit into the workpiece.

- Drilling in metal
  To prevent the bit from slipping when starting a hole, make an indentation with a center-punch and hammer at the point to be drilled. Place the point of the bit in the indentation and start drilling.

  Use a cutting lubricant when drilling metals. The exceptions are iron and brass which should be drilled dry.

CAUTION:

- Pressing excessively on the tool will not speed up the drilling. In fact, this excessive pressure will only serve to damage the tip of your bit, decrease the tool performance and shorten the service life of the tool.
- There is a tremendous force exerted on the tool/bit at the time of hole break through. Hold the tool firmly and exert care when the bit begins to break through the workpiece.
- Always grip the small workpiece firmly with a vise or a holding means.
- A stuck bit can be removed simply by setting the reversing switch to reverse rotation in order to back out. However, the tool will pull away easily unless you hold it firmly before starting the tool.

MAINTENANCE

CAUTION:
Always be sure that the tool is switched off and unplugged before attempting to perform inspection or maintenance.

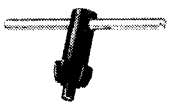
To maintain product SAFETY and RELIABILITY, repairs, carbon brush inspection and replacement, any other maintenance or adjustment should be performed by Makita Authorized or Factory Service Centers, always using Makita replacement parts.

OPTIONAL ACCESSORIES

The accessories listed in this manual are available at an extra cost from your Makita distributor or Makita factory service center. Service centers are listed on the warranty card packed with your tool.

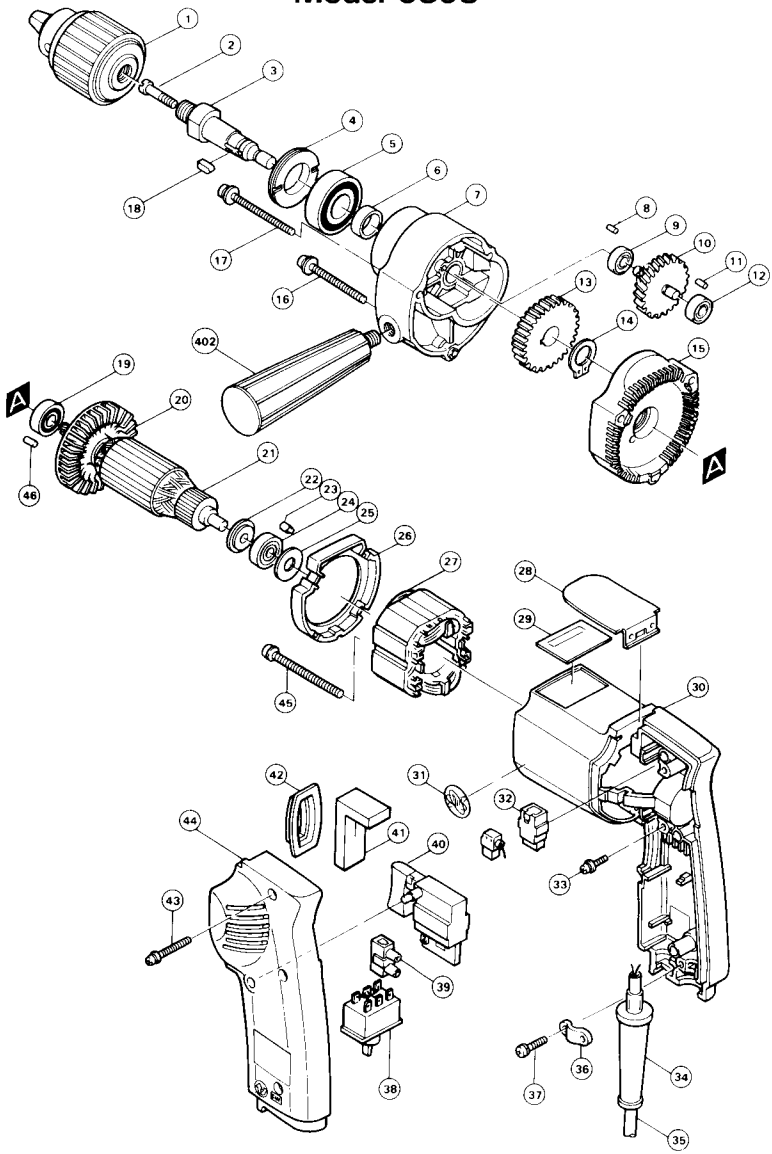
CAUTION:
These accessories or attachments are recommended for use with your Makita tool specified in this manual. The use of any other accessories or attachments might present a risk of injury to persons. The accessories or attachments should be used only in the proper and intended manner.

- **Chuck key**
  Part No. 763420-6



- **Grip 32**
  Part No. 273406-7

13 mm (1/2'')
DRILL
Model 6302
Model 6303



Note: The switch and other part configurations may differ from country to country.

ITEM NO.	NO. USED	DESCRIPTION
MACHINE		
1	1	Drill Chuck S13
2	1	Flat Head Screw M6x22
3	1	Spindle
4	1	Bearing Retainer 22–36
5	1	Ball Bearing 6202LLB
6	1	Ring 15
7	1	Gear Housing
8	1	Rubber Pin 4
9	1	Ball Bearing 606
10	1	Gear Complete
		7–46 For Model 6302
		10–46 For Model 6303
11	1	Rubber Pin 4
12	1	Ball Bearing 626
13	1	Spur Gear
		52 For Model 6302
		49 For Model 6303
14	1	Retaining Ring S–14
15	1	Gear Housing Cover
16	1	Pan Head Screw M4x50 (With Washer)
17	2	Pan Head Screw M4x65 (With Washer)
18	1	Key 5
19	1	Ball Bearing 608LB
20	1	Fan 52
21	1	Armature
22	1	Insulation Washer
23	1	Rubber Pin 4
24	1	Ball Bearing 627LB
25	1	Flat Washer 14
26	1	Baffle Plate
27	1	Field
28	1	Hook
29	1	Name Plate
30	1	Motor Housing
31	1	Label
32	2	Carbon Brush
33	1	Pan Head Screw M4x14 (With Washer)
34	1	Cord Guard
35	1	Cord
36	1	Strain Relief
37	2	Pan Head Screw M4x18 (With Washer)
38	1	Switch
39	1	Terminal Block
40	1	Switch
41	1	Sponge Sheet
42	1	Dust Cover
43	3	Pan Head Screw M4x28 (With Washer)
44	1	Handle Cover
45	2	Pan Head Screw M4x55 (With Washer)
46	1	Rubber Pin 4x10
402	1	Grip 32

Note: The switch and other part specifications may differ from country to country.

MAKITA LIMITED ONE YEAR WARRANTY

Warranty Policy

Every Makita tool is thoroughly inspected and tested before leaving the factory. It is warranted to be free of defects from workmanship and materials for the period of ONE YEAR from the date of original purchase. Should any trouble develop during this one-year period, return the COMPLETE tool, freight prepaid, to one of Makita's Factory or Authorized Service Centers. If inspection shows the trouble is caused by defective workmanship or material, Makita will repair (or at our option, replace) without charge.

This Warranty does not apply where:

- repairs have been made or attempted by others:
- repairs are required because of normal wear and tear:
- The tool has been abused, misused or improperly maintained;
- alterations have been made to the tool.

IN NO EVENT SHALL MAKITA BE LIABLE FOR ANY INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM THE SALE OR USE OF THE PRODUCT. THIS DISCLAIMER APPLIES BOTH DURING AND AFTER THE TERM OF THIS WARRANTY.

MAKITA DISCLAIMS LIABILITY FOR ANY IMPLIED WARRANTIES, INCLUDING IMPLIED WARRANTIES OF "MERCHANTABILITY" AND "FITNESS FOR A SPECIFIC PURPOSE," AFTER THE ONE-YEAR TERM OF THIS WARRANTY.

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

Makita Corporation of America
2650 Gainesville Hwy., Buford, GA 30518

883680D067

PRINTED IN USA
1994–11–4D

MCA/Revised 8-92